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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
09/915,404	07/27/2001	Pierre Sauvage	50002136-2	7097

7590 04/22/2005

John W. Ryan  
c/o Wilmer, Cutler & Pickering  
2445 M Street, N.W.  
Washington, DC 20037-1420

EXAMINER

TANG, KENNETH

ART UNIT PAPER NUMBER

2195

DATE MAILED: 04/22/2005

Please find below and/or attached an Office communication concerning this application or proceeding.

RECEIVED  
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Office Action Summary

Application No.

09/915,404

Applicant(s)

SAUVAGE, PIERRE

Examiner

Kenneth Tang

Art Unit

2195

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --  
Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☒ Responsive to communication(s) filed on 03 February 2005.
- 2a) ☒ This action is **FINAL**. 2b) ☐ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 1-13 is/are pending in the application.
- 4a) Of the above claim(s) \_\_\_\_\_ is/are withdrawn from consideration.
- 5) ☐ Claim(s) \_\_\_\_\_ is/are allowed.
- 6) ☒ Claim(s) 1-13 is/are rejected.
- 7) ☐ Claim(s) \_\_\_\_\_ is/are objected to.
- 8) ☐ Claim(s) \_\_\_\_\_ are subject to restriction and/or election requirement.

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on \_\_\_\_\_ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.  
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).  
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All b) ☐ Some \* c) ☐ None of:
1. ☐ Certified copies of the priority documents have been received.
2. ☐ Certified copies of the priority documents have been received in Application No. \_\_\_\_\_.
3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).
- \* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

- 1) ☐ Notice of References Cited (PTO-892)
- 2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
- 3) ☐ Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08)  
Paper No(s)/Mail Date \_\_\_\_\_
- 4) ☐ Interview Summary (PTO-413)  
Paper No(s)/Mail Date. \_\_\_\_\_
- 5) ☐ Notice of Informal Patent Application (PTO-152)
- 6) ☐ Other: \_\_\_\_\_

### **DETAILED ACTION**

1. This action is in response to the Amendment filed on 2/3/05. Applicant's arguments have been fully considered but were not found to be persuasive.
2. Claims 1-13 are presented for examination.
3. The Examiner is requesting Applicant to file a new clean copy of the claims in any response filed by Applicant which lists claims 1-13 with the claim identifier "(Previously Presented)", if no amendments to the claim language are made, in order to correct the claim misnumbering problem made in drafting the original claims.

### ***Claim Rejections - 35 USC § 112***

The following is a quotation of the second paragraph of 35 U.S.C. 112:

The specification shall conclude with one or more claims particularly pointing out and distinctly claiming the subject matter which the applicant regards as his invention.

4. Claims 1-13 are rejected under 35 U.S.C. 112, second paragraph, as being indefinite for failing to particularly point out and distinctly claim the subject matter which applicant regards as the invention:
  - a. In claims 1 and 8, "storage facilities" is indefinite because it is not made explicitly clear whether this term refers to the library (Fig. 1, 7) or the shared memory (Fig. 1, 9 and 11) or both, or neither.
  - b. In claims 1 and 8, "allowed work unit rate" is indefinite because it is not made explicitly clear in the claim language what this "allowed work unit rate" allows for and it is not clear what the rate consists of.

Art Unit: 2195

5. Claims 1-13 are rejected under 35 U.S.C. 112, second paragraph, as being incomplete for omitting essential structural cooperative relationships of elements, such omission amounting to a gap between the necessary structural connections. See MPEP § 2172.01. The omitted structural cooperative relationships are:

- a. In claim 1, there is no structural relationship established between the “storage facilities that do not rely on the functioning of processes” (line 5) and the “controlling the use of resources” (line 11).
- b. In claim 1, there is no structural relationship established between the “allowed work unit rate” (line 8) and the “at least one parameter” (line 9). If the parameters are indeed for the allowed work unit rate, it is not made explicitly clear in the claim language whether there is at least one allowed work unit rate.
- c. Claim 8 is rejected for the same reasons as stated in the rejection of claim 1 above.

### ***Claim Rejections - 35 USC § 103***

The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

**2. Claims 1-13 are rejected under 35 U.S.C. 103(a) as being unpatentable over Freeman et al. (hereinafter Freeman) (US 6,785,726 B1) in view of Chintalapati et al. (hereinafter Chintalapati) (US 6,457,063 B1).**

3. As to claim 1, Freeman teaches a method for controlling the use of a resource by at least one process in a data processing system with storage facilities that do not rely on the functioning of processes that use the mechanism (*col. 41, lines 32-55, col. 45, lines 9-33*), comprising the steps of:

providing a licence controller (license management subsystem 1110) (*col. 45, line 28*);  
communicating an allowed work unit rate (license management subsystem 1110 uses that information, together with the information indicating the total number of available pooled licenses it calculated at initialization to determine if a pooled license is available) (*col. 45, lines 28-32, col. 41, lines 31-35*) for the resource between the at least one process and the licence controller by storing at least one parameter in the storage facilities (*col. 41, lines 32-55, col. 45, lines 9-33*); and, in the at least one process, controlling the use of the resource by the process according to the parameter (*col. 45, lines 28-42*).

Freeman fails to explicitly teach having an inter-process communication mechanism. However, Chintalapati teaches dynamically controlling resources based on parameters with inter-process communication (*col. 11, lines 64-67, col. 12, lines 1-20*). It would have been obvious to one of ordinary skill in the art at the time the invention was made to include dynamically controlling resources based on parameters with inter-process communication to the existing system of Freeman because it would increase the efficiency of control operations and improve

the performance of computer systems by reducing the amount of time that services to resources are unavailable because of administrative functions (*col. 2, lines 39-41 and 57-63*).

4. As to claim 2, it is rejected for the same reasons as stated in the rejection of claim 1. In addition, Chintalapati teaches dynamically (repeatedly updating) controlling resources with inter-process communication (*col. 11, lines 64-67, col. 12, lines 1-20*).

5. As to claim 3, Chintalapati teaches wherein the step of communicating comprises having a process repeatedly read from its inter-process communication the parameter (*col. 11, lines 64-67, col. 12, lines 1-20*).

6. As to claim 4, it is rejected for the same reasons as stated in the rejection of claim 1. In addition, Freeman teaches having the licence controller read the actual use of the resource by the process (*col. 41, lines 32-55, col. 45, lines 9-33*).

7. As to claim 5, Freeman teaches wherein the step of controlling comprises, for the process, adapting (dynamic) its operation to the allowed work unit rate for the process (*col. 41, lines 32-55, col. 45, lines 9-33*).

8. As to claim 6, it is rejected for the same reasons as stated in the rejection of claim 1. In addition, Freeman teaches wherein the processes comprise a plurality of identical processes, and wherein the step of communicating comprises having the licence controller update the said

Art Unit: 2195

identical processes while sharing use of the resource between said identical processes (*col. 41, lines 33-55*).

9. As to claim 7, Chintalapati teaches dynamically controlling resources with an inter-process communication mechanism but Freeman and Chintalapati fails to explicitly teach teaches wherein the processing system is a multiprocessing system. However, "Official Notice" is taken that both the concept and advantages of providing that an inter-process communication system being a multiprocessing system is well known and expected in the art. It would have been obvious to one of ordinary skill in the art at the time the invention was made to include a multiprocessing system to the existing system because an inter-processing communication could not work without a multiprocessing system.

10. As to claim 8, it is rejected for the same reasons as stated in the rejection of claim 1.

11. As to claims 9-13, they are rejected for the same reasons as stated in the rejection of claims 1-3, 6, and 7.

#### ***Response to Arguments***

12. *Applicant argues on page 5 that "storage facilities" is generic to the library and the shared memory and is therefore such as to encompass at least both of the above mentioned storage facilities.*

In response, the Examiner respectfully disagrees. The claim language doesn't explicitly state that at least both of the library and the shared memory is encompassed by the storage facilities. In addition, a library is more abstract and not necessarily the same as a storage facility, which is more tangible.

13. *Applicant argues that the missing nexus between "allowed work unit rate" and "at least one parameter" has been resolved from the simple amendment.*

In response, the Examiner respectfully disagrees. There is still no connection made between the two terms and no link is made between the newly added inter-process communication with the at least one parameter, for example. In addition, the Applicant doesn't provide any support or explanation for how this missing link is now satisfied. It is not clear whether the at least one parameter is the allowed work unit rate or if the parameter is used to determine the work unit rate. The Examiner suggests amending the claims to clear that concern.

14. *Applicant argues on pages 5-7 that Chintalapati cannot be combined with Freeman because Chintalapati relates to daemon program services while Freeman relates to operating system services.*

However, Chintalapati teaches that daemon programs services are similar to operating system services (*col. 1, lines 28-29*). Applicant never addressed Freeman teachings. Freeman teaches resource controlling with a licence management subsystem, which is the licence controller (*col. 41, lines 28-55, col. 45, lines 9-33*). The license management subsystem uses information to indicate the total number of available pooled licenses it calculated at initialization to determine if a pooled license is available (*col. 45, lines 28-32, col. 41, lines 31-35*). The license management subsystem controls the use of the resource based on the parameter (*col. 45,*

Art Unit: 2195

*lines 28-42*). Chintalapati teaches dynamically controlling resources based on parameters with inter-process communication (*col. 11, lines 64-67, col. 12, lines 1-20*). It would have been obvious to one of ordinary skill in the art at the time the invention was made to include dynamically controlling resources based on parameters with inter-process communication to the existing resource control system of Freeman because it would increase the efficiency of control operations and improve the performance of computer systems by reducing the amount of time that services to resources are unavailable because of administrative functions (*col. 2, lines 39-41 and 57-63*). Freeman and Chintalapati are in the same field of endeavor of resource allocation in computer systems.

*15. Applicant argues on page 7 that it is not related how Chintalapati teaches how the inter-process communication mechanism is provided with the storage facilities.*

In response, Chintalapati teaches the inter-processing communication provided with memory as a storage facility (*col. 3, lines 17-33, col. 6, lines 23-41, for example*).

*16. Applicant argues on page 7 that the rejection has not identified which parameter, if any, is stored in the storage facilities and how this parameter is used in connection with the control of the resources.*

In response, this shown in the rejection of claim 1 (*col. 41, lines 32-55, col. 45, lines 9-33, col. 45, lines 28-42*). In addition, claim 1 of Chintalapati shows at least one parameter used to control operation of a plurality of resources.

***Conclusion***

**THIS ACTION IS MADE FINAL.** Applicant is reminded of the extension of time policy as set forth in 37 CFR 1.136(a).

A shortened statutory period for reply to this final action is set to expire **THREE MONTHS** from the mailing date of this action. In the event a first reply is filed within **TWO MONTHS** of the mailing date of this final action and the advisory action is not mailed until after the end of the **THREE-MONTH** shortened statutory period, then the shortened statutory period will expire on the date the advisory action is mailed, and any extension fee pursuant to 37 CFR 1.136(a) will be calculated from the mailing date of the advisory action. In no event, however, will the statutory period for reply expire later than **SIX MONTHS** from the mailing date of this final action.

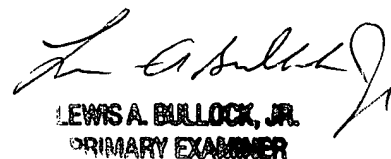
Any inquiry concerning this communication or earlier communications from the examiner should be directed to Kenneth Tang whose telephone number is (571) 272-3772. The examiner can normally be reached on 8:30AM - 6:00PM, Every other Friday off.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Meng-Ai An can be reached on (571) 272-3756. The fax phone number for the organization where this application or proceeding is assigned is 703-872-9306.

Art Unit: 2195

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).

Kt  
4/7/05

  
**LEWIS A. BULLOCK, JR.**  
**PRIMARY EXAMINER**